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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/512,016

06/27/2005

Hans-Joachim Barth

10808/163

8447

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02/18/2010

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EXAMINER

VELASQUEZ, VANESSA T

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

02/18/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/512,016	Applicant(s) BARTH ET AL.	
	Examiner Vanessa Velasquez	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-23 and 25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-23 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

Claims 1-11, 24, and 26 are canceled. Currently, claims 12-23 and 25 are presented for examination.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Status of Previous Claim Objections

The previous objections of claims 14 and 23 are withdrawn in view of the amendments to the claims.

Status of Previous Claim Rejections Under 35 USC § 112

The previous rejection of claims 18 and 25 under the first paragraph of 35 U.S.C. 112 is maintained. The previous rejection of claim 26 under the first paragraph of 35 U.S.C. 112 is moot in view of the canceled status of the claim.

With regard to claim 18, Applicant states that one of ordinary skill in the art would understand that impurity concentrations would be given in atomic percent. In response, there are several units used by those of ordinary skill in the art to denote impurity concentrations (e.g., weight, ppm, atomic, volume percents). Furthermore, the descriptions in paragraphs [0015] and [0035] do not clarify or even hint at what the units

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could be. Therefore, it would not be apparent to one of ordinary skill in the art that the currently claimed units would be supported by the specification.

With regard to claim 25, Applicant argues that one of ordinary skill in the art would understand that the movement of the delimited thermal region may be approximately 1 cm/second rather than exactly 1 cm/second. In response, it should be emphasized that new matter issues are not to be confused with those of obviousness (i.e., what one of ordinary skill in the art would understand), but rather, what Applicant has actually invented or is inherent to the invention. As was stated in the previous Office action, the use of the term "approximately" broadens the scope of the claim because "approximately" encompasses rates close to or about 1 cm/second (e.g., 0.8, 0.97, and 1.15 cm/second), for which there is no original disclosure. Thus, the claim does not comply with the written description requirement. See MPEP § 2163.05.

Claim Rejections - 35 USC § 102

1. Claims 12, 13, 14, 18, 19, 21, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Gat et al. (US 4,214,918). The claims remain rejected for the same reasons set forth in the Office action dated August 28, 2009.

Regarding the amended portion of claim 23, the coarsened grains are lengthened with respect to the initial grains, as inherently demonstrated by the increase of grain size from angstrom-scale to micron-scale, with even some grains growing to be as long as 32 μm (col. 3, lines 25-29). Gat et al. further teach that the larger grains consist of single crystals that are "pointed in the direction of the scan line" (col. 3, lines

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55-57). This anticipates the limitation that the larger grains (second grain size) are enlarged (lengthened in all directions) with respect to the smaller grain (first grain) in the direction of the scan line (movement).

Claim Rejections - 35 USC § 103

2. Claims 16, 17, 22, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gat et al. (US 4,214,918), as applied to claim 12 above, and further in view of Fan et al. (US 4,509,461). The claims remain rejected for the same reasons set forth in the Office action dated August 28, 2009.

3. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gat et al. (US 4,214,918), as applied to claim 12 above, and further in view of Wanlass (US 5,882,958). The claim remains rejected for the same reasons set forth in the Office action dated August 28, 2009.

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gat et al. (US 4,214,918), as applied to claim 12 above, and further in view of Higuchi et al. (JP 61-30027, English abstract). The claim remains rejected for the same reasons set forth in the Office action dated August 28, 2009.

Response to Arguments

Applicant's arguments filed November 24, 2009 have been fully considered but they are not persuasive.

Applicant primarily argues that Gat et al. do not teach moving the locally delimited thermal region such that the second grain size is lengthened in the direction of movement with respect to the first grain size. In response, the Examiner respectfully disagrees. In Gat et al. the coarsened grains are lengthened with respect to the initial grains, as inherently demonstrated by the increase of grain size from angstrom-scale to micron-scale, with even some grains growing to be as long as 32 μm (col. 3, lines 25-29). An increase in grain size from 300-600 Å (0.0300-0.0600 μm) to 250,000 Å (25 μm) means that the grain has been enlarged (lengthened in all directions) relative to the original, smaller grain. Gat et al. further teach that the larger grains consist of single crystals that are "pointed in the direction of the scan line" (col. 3, lines 55-57). This anticipates the limitation that the larger grains (second grain size) are enlarged (lengthened in all directions) with respect to the smaller grain (first grain) in the direction of the scan line (movement).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vanessa Velasquez whose telephone number is 571-270-3587. The examiner can normally be reached on Monday-Friday 9:00 AM-6:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached at 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Vanessa Velasquez/
Examiner, Art Unit 1793
/Scott Kastler/
Primary Examiner, Art Unit 1793